

DETERMINATION OF PLANTS COLLECTED IN COLOMBIA BY F. W. PENNELL
in 1917 (including Rusby & Pennell).

- Pennell 84. *Boerhaavia erecta* L.
 115. *Rivina humilis* L.
 363. *Chamissoa altissima* (Jacq.) H. B. K.
 501. *Drymaria cordata* (L.) Willd.
 545. *Bocconia frutescens* L.
 559. *Arenaria lanuginosa* (Mx.) Rohrb.
 607. *Coriaria thymifolia* Willd.
 622. *Drymaria cordata* (L.) Willd.
 642. *Ranunculus praemorsus* DC.
 644. *Drymaria gracilis* C. & S.
 691. *Passiflora mollissima* (H. B. K.) Bailey.

 698. *Hedyosmum bonplandianum* H. B. K.

 715. *Cardamine flaccida* C. & S.
 742. *Muhlenbeckia tamnifolia* (H.B.K.) Meisn.
 802. *Hedyosmum scabrum* (R. & P.) Solms.
 811. *Clematis dioica* L.?
 1057. *Weinmannia crenata* Presl.
 1130. *Hirtella paniculata* Sw.
 1267. *Alchemilla aphanoides* Mutis.
 1267a. " " "
 1275. *Acaena elongata* L.
 1284. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.
 1322. *Arenaria lanuginosa* (Mx.) Rohrb.
 1563. *Drymaria cordata* (L.) Willd.
 1567. *Microtea debilis* Sw.
 1733. *Drymaria gracilis* C & S.
 1742. *Valeriana gracilis* Benth.
 1755. " " "
 1776. *Arenaria lanuginosa* (Mx.) Rohrb.
 1897. *Drimys winteri* Forst.
 1928. *Sisymbrium solidagineum* Tr. & Pl.
 1954. *Cardamine ovata* Benth.
 1987. *Cerastium glutinosum laxum* Tr. & Pl.
 2078. " " " "
 2084. *Alchemilla nivalis* H. B. K.
 2117. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.
 2160. *Ranunculus bonariensis* Poir.
 2170. " *flagelliformis* Sm.
 2186. " *peruvianus* Pers.
 2232. *Alchemilla nivalis* H. B. K.
 2252. *Valeriana mutisiana* (Wedd.) Hoeck.
 2253. *Berberis glauca* H. B. K.
 2267. *Acaena cylindrostachya* R. & P.
 2284. *Altermanthera mexicana* (Schl.) Hieron.
 2314. *Ranunculus flagelliformis* Sm.
 2326. " " "

- Pennell 2368. *Weinmannia tomentosa* L. f.
 2378. *Valeriana crassifolia* H. B. K.
 2398. *Thalictrum podocarpum* DC.
 2401. *Hedyosmum scabrum* (R. & P.) Solms.
 2441. *Clematis sericea* H. B. K.
 2561. *Cardamine ovata* Benth.
 2710. *Astrephia chaerophylloides* DC.
 2719. *Arenaria lanuginosa* (Mx.) Rohrb.
 2834. *Hemistylis velutina* Wedd.
 2950. *Alchemilla aphanoides* Mutis.
 2960. *Cardamine jamesonii* Hook.
 2961. *Ranunculus praemorsus* DC.
 2963. *Drimys winteri* Forst.
 2972. *Alchemilla orbiculata* R. & P.
 2976. *Cardamine flaccida* C. & S.
 2982. *Acaena ovalifolia* R. & P.
 2984. *Colignonia ovalifolia* Heimerl.
 3016. *Alchemilla nivalis* H. B. K.
 3025. " " "
 3031. *Cerastium floccosum* Benth.
 3032. *Draba cheiranthoides* Hook. f. ~~?~~
 3034. *Cerastium glutinosum* H. B. K.
 3035. *Draba pachythyrus* Tr. & Planch.
 3049. *Valeriana plantaginea* H. B. K.
 3050. *Valeriana plantaginea* H. B. K.
 3052. *Cerastium willdenovii* H. B. K.
 3054. *Ranunculus peruvianus* Pers.
 3080. *Phrygilanthus corymbosus* (Dietr.) Eichl.
 3118. *Cardamine ovata* Benth.
 3169. *Alchemilla aphanoides* Mutis.
 3196. *Passiflora parritae* (Mast.) Bailey.
 3202. *Hedyosmum goudotianum* Solms.
 3221. *Iresine celosia* L.
 3244. *Drymaria gracilis* C. & S.
 3637. *Hirtella paniculata* Sw.
 3692. *Iresine celosia* L.
 3717. *Helianthium tenellum* (Mart.) Britton.
 3876. *Boerhaavia coccinea* Mill.
 4200. *Iresine celosia* L.
 4674. *Glinus radiatus* R. & P.
 4705. *Altermanthera polygonoides* (L.) R. Br.

November 19, 1924.

Gruen

PLANTS COLLECTED IN COLOMBIA BY F. W. PENNELL, 1917-1918
(including Rusby & Pennell).

- 88. *Sida acuta* Burm.
- 93. *Cuscuta americana congesta*.
- 139. *Turnera ulmifolia* L.
- 209. " "
- 298. *Paullinia fuscescens*.
- 337. *Turnera ulmifolia* L.
- 392. *Phyllanthus diffusus* Kl.
- 400. *Psidium araca* Raddi.
- 436. *Myrcia xylopioides* (H. B. K.) DC.
- 476. *Melochia hirsuta* Cav.
- 494. *Pavonia collis* H. B. K.
- 496. *Melochia venosa* Sw.
- 581. *Phyllanthus lathyroides* H. B. K.
- 766. *Bomarea setacea* (R. & P.) Herb.
- 771. *Juncus bogotensis* H. B. K.
- 1110. *Myrcia xylopioides* (H. B. K.) DC.
- 1139. *Chamaesyce densiflora* (Kl.).
- 1187. " *lasiocarpa* Kl.
- 1216. *Oenothera multicaulis tarquensis* (H. B. K.) Munz & Johnston.
- 1379. *Helicteres guazumaefolia* H. B. K.
- 1453. *Cuscuta corniculata* Engl. (Det. T. G. Yuncker)
- 1481. *Myrcia lanceolata* Camb. (Leaves broader but otherwise typical.)
- 1495. *Phyllanthus carolinensis* Walt.
- 1712. *Myrcia lanceolata* Camb.
- 1743. *Sclerothrix fasciculata* Presl.
- 1753. *Melochia lupulina* Sw.
- 1773. *Psidiopsis moritziana* Berg.
- 1794. *Melochia lupulina* Sw.
- 1800. *Sclerothrix fasciculata* Presl.
- 1809. *Polygala gracilis* H. B. K.
- 1811. *Bomarea ovata* (Cav.) Mirb.
- 1819. *Bomarea multiflora* (L. f.) Mirb.
- 1917. *Ugni myricoides* (H. B. K.) Berg.
- 1925. *Bomarea frondea* Mast.
- 1946. *Plagiocheilus bogotensis* (H. B. K.) Wedd.
- 1947. *Geranium hirtum* Willd.
- 1990. *Juncoides racemosum* (Desv.) Kuntze.
- 2032. *Bomarea caldasii* (H. B. K.) Aschers. & Graebn.
- 2049. *Juncus brunneus* Buchenau?
- 2058. *Geranium multiceps* Turcz.
- 2066. *Geranium cucullatum elongatum* Wedd.
- 2079. *Juncoides giganteum* (Desv.) Steldon.
- 2133. *Juncus bogotensis* H. B. K.
- 2134. " *microcephalus* H. B. K.
- 2159. *Scutellaria racemosa* Pers.

- 2166. *Juncus imbricatus* LaHarpe.
- 2184. *Parosela mutisii* (H. B. K.).
- 2215. " " "
- 2258. *Myrteola oxycoccoides* (Benth.) Berg.
- 2299. *Geranium hirtum* Willd.
- 2309. *Jussiaea repens* L.
- 2330. *Oenothera multicaulis tarquensis* (H. B. K.) Munz &
 Johnston. (Det. Munz & Johnston)
- 2337. *Phyllanthus salviaefolius* H. B. K.
- 2430. *Vallea stipularis* Mutis.
- 2511. *Juncus densiflorus* H. B. K.
- 2512. " *microcephalus* H. B. K.
- 2557. " *bufonius* L.
- 2558. " *imbricatus* LaHarpe.
- 2592. *Bomarea hispida* Baker.
- 2660. *Gunnera pilosa* H. B. K.
- 2757. *Pavonia sidifolia* H. B. K.
- 2805. " *dasypetala* Turcz.
- 2899. *Chamaesyce hyssopifolia* (L.).
- 2915. *Cracca leptostachya* (DC.) Rusby.
- 2919. *Phyllanthus diffusus* Kl.
- 2935. *Crotalaria pterocaula* Desv.
- 2964. *Geranium columbianum* Knuth.
- 2969. *Juncus involucreatus* Steud.
- 2973. *Geranium columbianum* Knuth.
- 2981. " *hirtum* Willd.
- 3028. *Juncoides peruvianum* (Desv.) Kuntze?
- 3105. " *giganteum* (Desv.) Sheldon.
- 3187. *Bomarea multiflora* (L. f.) Mirb.
- 3223. *Acalypha macrostachya* Jacq.
- 3234. *Bomarea krauzlinii* Baker?
- 3249. *Melochia lupulina* Sw.
- 3305. *Phyllanthus lathyroides* H. B. K.
- 3322. *Loasa triphylla papaverifolia* (H. B. K.) Urb. & Gilg.
- 3345. *Sida glutinosa* Commers.
- 3382. *Phyllanthus lathyroides* H. B. K.
- 3459. *Melochia hirsuta* Cav.
- 3532. *Phyllanthus diffusus* Kl.
- 3533. *Chamaesyce hyssopifolia* (L.).
- 3609. " *densiflora* (Kl.).
- 3659. *Melochia hirsuta* Cav.
- 3661. *Turnera ulmifolia* L.
- 3746. *Acalypha diversifolia* Jacq.
- 3792. *Chamaesyce lasiocarpa* Kl.
- 3986. *Melochia nodiflora* Sw.
- 4060. *Parosela barbata* (Oerst.) Rydb.
- 4074. *Melochia lupulina* Sw.
- 4111. *Acalypha macrostachya* Jacq.
- 4124. *Teucrium palustre* H. B. K.
- 4180. *Acalypha diversifolia* Jacq.
- 4256. *Bomarea angustipetala* (Benth.) Baker.
- 4309. " *crassifolia* Baker.
- 4619. *Teucrium palustre* H. B. K.

Rusby-Pennell

Basleria.

(det. C. V. Morton)

- 1367. *impressa* Morton
- 2417. *reticulata* var. *venosa* Morton
- 2665. *reticulata* Fritsch
- 2666. " var. *venosa* Morton
- 3400. *solanoides* H.B.K.
- 4382. *microphylla* var. *serrulata* Morton type

300. *Carica goudotiana* Planch. & Tr.
 576. *Begonia holtonis* A. DC.
 717. " *tovarensis* Kl.
 1537. " *macra* A. DC.
 1674. *Vismia rufescens* (Lam.) Pers.
 1926. *Begonia urticae* L. f.
 2440. " *ferruginea* L. f.
 2543. " *tovarensis* Kl.
 2653. *Begonia foliosa* H.B.K.
 2925. *Ouratea magdalenae* (Tr. & Pl.) Engl.
 2984. *Colignonia ovalifolia* Heimerl (*det. Standley*)
 3284. *Begonia holtonis* A. DC.

V. COLLECTIONS OF RUSBY & PENNELL IN COLOMBIA, 1917-1918

- 437 *Miconia rufescens* (Aubl.) DC.
 ✓399 " *albicans* (Sw.) Triana
 694 " *theaezans* (Bonpl.) DC.
 792 " *floribunda* Naud.
 791 " *minuta* Gleason, n.sp.
 818 " *floribunda* Naud.
 813 " *aggregata* Gleason, n.sp.
 1011 " *rufescens* (Aubl.) DC.
 831 " *cuneifolia* Gleason, n.sp.
 1080 " *stenostachya* (Schr. & Mart.) DC.
 1088 " *albicans* (Sw.) Triana
 11310 " *ligustrina* (Smith) Triana
 1361 " *macrophylla* (D. Don) Triana
 ✓1283 " *ligustrina* (Smith) Triana
 1404 " *rufescens* (Aubl.) DC.
 1511 " *minutiflora* (Bonpl.) DC.
 1677 " *theaezans* (Bonpl.) DC.
 ✓1971 " sp.
 2094 " *ligustrina* (Smith) Triana
 2121 " *cataractae* Triana
 2172 " *reclinata* (Bonpl.) Naud.
 ✓2211 " *ligustrina* (Smith) Triana
 2418 " *stipularis* Naud.
 ✓2739 " *spicellata* Bonpl.
 ✓2851 " *albicans* (Sw.) Triana
 ✓2852 " *acinodendrum* (L.) Triana
 2894 " *stenostachya* (Schr. & Mart.) DC.
 ✓3078 " *salicifolia* (Bonpl.) Naud.
 ✓3152 " sp.
 3441 " *barbinervis* (Benth.) Triana
 ✓3525 " *albicans* (Sw.) Triana
 4392 " sp.

Pennell 3487. *Bleparodon minimum* Woodson (type)

Pennell. 1587. *Mascagnia volubilis* (Sims) Ndz.

" 3560. *Hiraea ternifolia granatensis* ^{aris} ~~vulgaris~~ Ndz.

" 4033. *Mascagnia dumetorum* Morton (type)

Pennell-Colombia

3336. *Dioscorea flaccida* Knuth (type)

det. R. Knuth

Xyris
Rusby & Pennell - 1917
775. *X. columbiana* Malme (but not typical)
1409. *X. lacerata* Pohl
2202. *X. acutifolia* (Heimerl) Malme

(Det. Malme)

RUSBY & PENNELL -- COLOMBIA

(Det. Standley)

391. *Iresine argentata* (Mart.) D. Dietr.
1092. " " " "
1659. *Pfaffia iresinoides* (H.B.K.) Spreng.
1828. " *Dunallana* (Moq.) Standl.
1886. *Alternanthera elongata* (Willd.) Standl.
1957. " *lanceolata* (Benth.) Standl.
2284. " *porrigens* (Jacq.) Kuntze?
3879. *Amaranthus dubius* Mart.
4668. " " " "
4705. *Alternanthera polygovoidea* (L.) R. Br.

Colombia, Rusby and Pennell, 1917--1918

- 480-A, 499-A *Tibouchina ciliaris* (Vent.) Cogn.
500-A *Aciotis paludosa* (Mart.) Triana
523-A *Tibouchina longifolia* (Vahl) Baill.
568, 569 *Monochaetum Bonplandii* (Kunth) Naud.
✓684 *Monochaetum meridense* Naud.
723 *Tibouchina lepidota* (Bonpl.) Baill.
736 *Monochaetum meridense* Naud.
✓804 " *villosum* Gleason, n. sp.
820 ~~849~~ " *meridense* Naud.
✓943 " *Bonplandii* (Kunth) Naud.
968 " "
981 " "
✓1051 *Tibouchina gracilis* (Bonpl.) Cogn.
✓1123 *Clidemia capitellata* (Bonpl.) D. Don
1423 *Poteranthera minor* Gleason, n. sp.
1467 *Siphanthera alsinoides* Gleason, n. sp.
1510 *Clidemia cymosa* Gleason, n. sp.
1849 *Tibouchina ciliaris* (Vent.) Cogn.
✓2449 *Monochaetum coronatum* Gleason, n. sp.
3332 *Tibouchina ciliaris* (Vent.) Cogn.
✓3466 *Clidemia capitellata* (Bonpl.) D. Don
✓3470 *Meriania barbinervis* Naud.
4447 *Tococa platyphylla* Benth.
4466 *Blakea fasciculata* Gleason, n. sp.
4546 *Triolena hirsuta* Triana

Pennell

1423. *Dichromena parvula* B. & K.
1501. " " " "
3216. " *polystachya* Purrrill
✓ 12499. *Rhaphithamnus cyanocarpus* (Bert.) Miers (det. Moldenke)
✓ 14440. *Cynanchum eurystephanum* Malme (type)

F. W. Pennell, Colombia

2019. *S. abirtimus* Willd.
2047. *S. chinogeton* Wedd. forma *macrocephalus* Hieron
2051. *S. subbruncinatus* (Wedd.) Greenman
2055. *S. stuebelii* Hieron
2971. *S. patens* (HBK.) DC.
2985. *S. sylvicolus* Greenman, sp. nov.
3002. *S. weddellianus* Hieron
3033. *S. latiflorus* Wedd.
3076. *S. andicola* Turcz.

Hydrocotyle.

Det. Mildred E. Mathias, 1933.

Pennell-Colombia.

2799. *H. pusilla* A. Rich
3204. *H.* "
2624. *H. tenerrima* Rose (type)
In P. & K. 6592. *H. Humboldtii* A. Rich
In P. & K. 9202. *H.* "
2945. *H. hederacea* Mathias

Pennell (Rusby & Pennell). Colombia

1950. *Cestrum petiolare* H.B.K. (Det. Morton)
2349. " *mutisii* Willd. " "
3984. *Rhynchospora corymbosa* (L.) Britton
4153. *Tradescantia elongata* G.F.W. Mey.
4214. *Hybanthus prunifolius* (H.B.K.) Schultze
3522. *Cassaria silvestris* Sw. (Det. Sleumer)

Current South American Collections identified by H. Sleumer.

Reported by U. S. National Museum, March 1936.

Rusby & Pennell-Pennell

- ✓ 748. *Vaccinium meridionale* Sw.
✓ 749. " "
840. " *floribundum ramosissimum* (Dunal) Sleumer
✓ 2060. " " "
2598. " " H.B.K.
✓ 4262. " " *marginatum* (Dunal) Sleumer and *V. corymbo-*
dendron Dunal

~~Julocroton hons~~

171. *Julocroton hondensis* (Karst.) Muell. Arg.
511. *Siparuna sessiliflora* (H. B. K.) DC. (Det. A. C. Smith)
970. *Inga corucans* Willd.?
1420. *Eriosema simplicifolium* (~~auther2~~) *cf. Don*
1850. *Mucuna sloanei* Fawc. & Rendle (correction)
3936. *Pithecolobium lanceolatum* (H. & B.) Benth.
4159. *Inga vera* Willd.
4792. *Priva lappulacea* (L.) Pers.

um, September 1933.

2538. *Cyperus aschenbornianus* Boeck. (correction)
3032. *Draba pennell-hazenii* O. E. Schulz (det. O. E. Schulz)
3165. *Juanulloa speciosa* (Miers) Dun.
3295. *Costus sanguinens* Donn. Sm. (det. Rowlee in N. Y. B. G.)
3304. " *nutans* K. Sch. " " " "
3437. *Albizzia carbonaria* Britton (det. Britton)
3633. *Scleria latilacunosa* Kukenth. (det. Core)
4203. *Cyperus chalaranthus* Presl (correction)
4009. *Chamaecrista schlimii* (Benth.) B. & R.
4653. *Cyperus chalaranthus* Presl (correction)
4698. *Brownea stenantha* Britton & Killip (type)

Rusby & Pennell, Colombia

- 905, 2665. *B. caleria* reticulata Fritsch
1367. *B. leucostoma* (Hook.) Hanst.
2666, 2417. *B. nitens* Fritsch
3400. *B. acutifolia* Benth.
4382. *B. microphylla* Fritsch

Rusby & Pennell, Colombia.

Malpighiaceae determined by C. V. Morton; others by E. P. Killip
unless otherwise noted.

U. S. National Museum, December 1934.

- 134, 3617, 2813. *Galactia velutina* Benth.
222. *Bunchosia glauca* H.B.K.
319. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.
338. *Tetrapteris huilensis* Morton (type)
640, 834, 999. *Clusia multiflora* H.B.K. (Det. A. C. Smith)
891. *Aphelandra acanthus* Nees (det. fernand)
1136. *Banisteria suberosa candolleana* (Juss.) Morton
1141. " *purpurea puberula* (Ndz.) Morton
1390. *Mandevilla subsagittata* (R. & P.) Woods. (Det. Woodson)
1403. *Vismia lauriformis* (Lam.) Choisy (Det. A. C. Smith)
1420. *Eriosema simplicifolium* (H.B.K.) Walp.
1512. *Tetrapteris calophylla* Juss.
1642. *Phaseolus linearis* H.B.K.
1840. *Galactia velutina* Benth.
1879. *Cologania ovalifolia* H.B.K.
2470. " " "
2743. *Galactia velutina* Benth. (form)
2820, 2838. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.
2829. *Dioclea paniculata* Killip
2874. *Heliconia robusta* Pax (Det. Griggs)
2929. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.
3243. *Calopogonium galactioides* (H.B.K.) Benth.
3427. *Oryctanthus ruficaulis* (P. & E.) Eichl. (Det. A. C. Smith)
3438. *Mesechites brevipes* (Benth.) Muell. Arg. (Det. Woodson)
3513. *Galactia velutina* Benth.
3610. *Machaerium tolimense* Killip (type)
3962. *Sesbania exasperata* H.B.K.
3966. *Triplaris pyramidalis* Jacq.
3971. *Bunchosia rhombifolia* Turcz.
3979. *Machaerium attenuatum* Killip (type)
4080. *Dioclea guianensis* Benth.
4161. *Rhynchosia calycosa* Hemsl.
4242. *Chaetocalyx retusa* Blake (not *C. latisiliqua*)
4255. *Carex conferto-spicata* Boeckl. (Det. Mackenzie)
4373. *Clusia multiflora* H.B.K. (Det. A. C. Smith)

Rusby & Pennell, Colombia

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Rusby & Pennell, Colombia.

Malpighiaceae determined by C. V. Morton; others by E. P. Killip
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U. S. National Museum, December 1934.

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(Det. Miss C. K. Allen, Missouri Botanical Garden).

Rusby & Pennell.

2434. ^{Senecio} *H. brevicornis* (H. B. K.) Don

2438. *H. major* Wedd.

3001. *H. dasyantha* Gilg

4268. *H. foliosa* Gilg

Determination of current South American collections

Rusby & Pennell.

827. *Disterigma elassanthum* Blake. Type.

2411. *Loasa campanuliflora* Tr. & Planch.

MALPIGHIACEAE. DET. G. V. MORTON.

Rusby & Pennell 103. *Mascagnia violacea* (Tr. & Pl.) Ndz. (ex char.)

" " " 338. *Tetrapteryx huilensis* Morton (type)

Pennell

1202. *H. suaveolens* Poit.

3585. *H.* " "

3891. *H. pectinata* (L.) Poit.

Hesperis
det. *Spring*

-Rusby & Pennell 4437 *Miconia desmantha* Benth.

Rusby & Pennell 4404 Unidentifiable, possibly *Leandra*

" " 817 " " "

Rusby & Pennell, and Pennell 1917

Rubus
637. *R. glaucus* Benth.

708. *R. porphyromallus* Focke

884. Cf. *R. guayanensis* Focke

912. *R. guayanensis* (aff.) Focke

1843. *R. boliviensis* Focke

1969. *R. glaucus* Benth.

3129. *R. glaucus* Benth.

3326. *R. urticaefolius* Poir.

TT

Rusby & Pennell & Pennell, 1917

586. *O. scandens* H.B.K.

764. *O. lotoides* H.B.K.

1593. *O. barrelieri* L.

2571. *O. pubescens* H.B.K.

2939. *O. lotoides* H.B.K.

3096. *O. tolimensis* R. Knuth, TYPE

3113. *O. scandens* H.B.K.

3312. *O. hedysaroides* H.B.K.

Colombia:

Rusby & Pennell (or Pennell):

- 16. *Cissus erosa* L.C.Rich.
- 40. " " "
- 59. *Chelonanthus acutangulus* (R. & P.) Gilg
- 178. *Carearia mariquitensis* HBK. (comp. type at P.)
- 224. *Ficus elliptica* HBK. (comp. type at P.)
- 266. *Trichilia cuneata* Radlk. (det. Harms)
- 275. *Trichilia* aff. *peruviana* C.DC. (det. Harms)
- 280. *Aristolochia ringens* Vahl
- 288. *Gouania tomentosa* Jacq.
- 292. *Sissis sicyoides* L.
- 299. " "
- 323. *Phthirusa theobromae* (Willd.) Eichl.
- 326. *Waltheria americana* L.
- 371. *Ficus elliptica* HBK.
- 440. *Chelonanthus acutangulus* (R. & P.) Gilg.
- 445. *Melochia mollis* (HBK.) Tr. & Pl. (comp. type at P.)
- 542. *Gaultheria erecta* Vent.
- 564. *Gaultheria anastomosans* HBK.
- 655. *Smilax Ruiziana* Kunth
- 672. *Styrax macrocalyx* Perk.
- 678. *Symbolanthus latifolius* Gilg
- 720. *Siparuna macrophylla* (HBK.) A.DC.
- 748. *Vaccinium caracasana* HBK.
- 749. " "
- 753. *Rhamnus Goudotianus* Tr. & Pl.
- 802. *Hedyosmum Goudotianum* Solms, not *H. scabrum*
- 806. *Nectandra globosa* (Aubl.) Mez
- 821. *Smilax cumanensis* H. & B.
- 828. *Gaultheria anastomosans* HBK.
- 840. *Vaccinium caracasana* HBK.
- 841. " "
- 885. *Cissus rhombifolia* Vahl
- 922. *Siparuna macrophylla* (HBK.) A.DC. (comp. type at P.)
- 961. *Clethra repanda* Turcz.
- 967. *Gaultheria anastomosans* HBK.
- 984. *Sisyrinchium iridifolium* HBK. (comp. type at P.)
- 996. *Gaultheria erecta* Vent. (comp. type at B.)
- 1068. *Burmannia capitata* (Michx.) Mart.
- 1149. *Bursera tomentosa* (Jacq.) Tr. & Pl.
- 1258. *Gaylussacia buxifolia* HBK.
- 1304. *Orthrosanthus chimboracensis* (HBK.) Baker
- 1311. *Pernettya myrsinoides* (HBK.) Zucc.
- 1312. " "
- 1313. *Gaultheria cordifolia* HBK.
- 1314. *Gaultheria anastomosans* HBK.
- 1315. " "
- 1316. " "
- 1316A. " "
- 1324. *Sisyrinchium convolutum* Nees
- 1348A. *Sisyrinchium alatum* Hook.
- 1383. *Cissampelos pareira* L. v *typica* Diels
- 1416. *Burmannia flava* Mart.
- 1418. *Chelonanthus bifidus* (HBK.) Gilg (comp. type at B.)

Rusby & Pennell (cont.):

1546. *Chelonanthus bifidus* (HBK.) Gilg
 1656. *Disciphania appendiculata* Diels (comp. type coll. at K.)
 1684. *Chelonanthus uliginosus* (Griseb.) Gilg
 1726. *Cipura paludosa* Aubl.
 1745. *Cleome pilosa* Benth.
 1866. *Cissampelos fasciculata* Benth.
 1885. *Boussingaultia brachstachys* (Moq.) (comp. type at K.)
 1935. *Gaultheria cordifolia* HBK.
 2023. *Clethra fimbriata* HBK. (comp. type at P.)
 2025. *Gaylussacia buxifolia* HBK. (comp. type at P.)
 2030. *Sisyrinchium bogotense* HBK.
 2046. *Ternstroemia meridionalis* Mutis
 2059, part. *Pernettya myrsinoides* (HBK.) Zucc.
 2061. *Gaultheria anastomosans* HBK. (comp. type at P.)
 2062. " "
 2082. *Sisyrinchium pusillum* HBK.
 2091. *Gaultheria purpurascens* HBK.
 2113. *Sisyrinchium pusillum* HBK. (comp. type at P.)
 2162. *Sisyrinchium bogotense* HBK. (comp. type at P.)
 2195. *Macrocarpaea polyantha* Gilg (comp. type coll. at K.)
 2208. *Ternstroemia meridionalis* Mutis
 2218. *Gaultheria purpurascens* HBK. (comp. type at P.)
 2372. *Gaultheria anastomosans* HBK.
 2431. *Dendrophthora squamigera* (Benth.) B. & H. (comp. type at K.)
 2432. *Sisyrinchium bogotense* HBK.
 2453. *Dendrophthora clavata* (Benth.) Urb. (comp. type at K.)
 2487. *Disterigma alaternoides* (HBK.) Nied.
 2490. *Symbolanthus tricolor* Gilg
 2598. *Vaccinium polystachyum* Benth.
 2742. *Buettneria mollis* HBK.
 2782. *Cipura paludosa* Aubl.
 2794. " "
 2853. *Chelonanthus bifidus* (HBK.) Gilg
 2861. *Chelonanthus uliginosus* (Griseb.) Gilg
 2924. *Cipura paludosa* Aubl.
 2937. *Vaccinium polystachyum* Benth.
 2946. *Sisyrinchium convolutum* Nees
 2955. *Vaccinium polystachyum* Benth.
 2983. *Pernettya myrsinoides* (HBK.) Zucc. (comp. type at P.)
 3009. *Disterigma empetrifolium* (HBK.) Nied.
 3138. *Gaultheria cordifolia* HBK. (comp. type at B.)
 3140. *Pernettya Pentlandii* DC. (comp. type at C.)
 3146. *Siparuna buddleiifolia* (Benth.) A.DC. (comp. type at K.)
 3202. *Hedyosmum Bonplandianum* HBK. (comp. type at P.), not
 H. Goudotianum
 3324. *Cissampelos fasciculata* Benth.
 3395. *Cleome puberula* Tr. & Pl. (comp. type coll. at K.)
 3474. *Waltheria americana* L.
 3495. *Curtia tenuifolia* (Aubl.) Knobl
 3546. *Erythraea quitensis* HBK. (comp. type at P.)
 3622. *Cipura paludosa* Aubl.
 3623. *Aristolochia pilosa* HBK. (comp. type at P.) (!O.C.Schmidt)
 3630. *Nectandra caucana* Mez (comp. type at K.)
 3631. *Xylosma elegans* (Tul.) Tr. & Pl. (comp. type at P.)

Rusby & Pennell (cont.):

3635. *Cecropia Goudotiana* Trec. (comp. type at P.)
 3641. *Cipura paludosa* Aubl.
 3671. " "
 3722. *Souroubea guianensis* Aubl.
 3781. *Ficus glabrata* HBK.
 3830. *Triplaris caracasana* Cham.
 3832. *Herrania albiflora* Goud.
 3915. *Casearia spinosa* Willd.
 3942. *Bombax mompoxense* HBK. (comp. type at P.)
 3965. *Triplaris Cumingiana* Fisch. & Mey.
 3976. *Lafoensia puniceifolia* DC.
 4090. *Lecythis elliptica* HBK.
 4116. *Helicteres guazumaefolia* HBK.
 4123. *Struthanthus orbicularis* (HBK.) Blume
 4142. " "
 4208. *Herrania albiflora* Goud.
 4250. *Pernettya myrsinoides* (HBK.) Zucc.
 4253. *Sisyrinchium pusillum* HBK.
 4262. *Vaccinium densiflorum* Benth.
 4267. *Disterigma empetrifolium* (HBK.) Nied.
 4280. *Gaylussacia buxifolia* HBK.
 4306. *Gaultheria cordifolia* HBK.
 4354. *Cavendishia sophoclesioides* A.C.Smith (type)
 4371. *Ternstroemia meridionalis* Mutis (comp. type at P.)
 4431. *Disterigma cuspidatum* (Planch.) Nied.
 4548. *Gustavia pleurocarpa* Pittier (comp. type coll.) (new to S.A.)
 4575. *Clusia Cooperi* Standl. (comp. type coll.) (new to S.A.)
 4576. " " "
 4585. *Aristolochia pilosa* HBK. (!O.C.Schmidt)
 4593. *Ficus glabrata* HBK. (comp. type at P.)
 4703. *Struthanthus orbicularis* (HBK.) Blume (comp. type at P.)
 4747. *Aristolochia loriflora* Masters (det. O.C.Schmidt)

4437. *Miconia desmantha* Benth. (det. Gleason)

Colombia.

Rusby & Pennell:

377. *Phthirusa tortuosa* A.C.Smith (type)
 583. *Siparuna huilensis* A.C.Smith
 837. *Phthirusa pyrifolia* (HBK.) Eichl?
 869. *Siparuna huilensis* A.C.Smith (type)
 870. " " "
 1662. *Aegiphila integrifolia* (Jacq.) Jacks. (det. Moldenke)
 2060. *Vaccinium floribundum* HBK.
 2664. *Themistoclesia rostrata* A.C.Smith (type)
 3199. *Struthanthus leptostachyus* (HBK.) G. Don. vel valde aff.
 3519. *Callicarpa acuminata* HBK. (det. Moldenke)
 3629. " " "
 3902. *Psittacanthus Warmingii* Eichl.
 4288. *Vaccinium Pennellii* A.C.Smith
 4316. " " "
 4341. *Gaultheria Pennellii* A.C.Smith (type)
 4354. *Cavendishia sophoclesioides* A.C.Smith (type)

MISCELLANEOUS

Gleason 785. *Ficus gleasonii* Standl.

841. " *olmediaefolia* Standl.

De la Cruz 1167. *Trema micrantha* (L.) Blume

1558. *Ficus gleasonii* Standl.

2359. " " "

2396. " " "

2639. " " "

2870. " " "

4496. *Solanum surinamense* Steud

Broadway (Venezuela) 736. *Coleosanthus diffusus* (Vahl) Ktze. (Det. Blake)

Broadway 848. *Parahancornia amapa* (Hub.) Ducke

Pachano 47. *Hydrocotyle bonplandii* Rich.

81. *Geranium mexicanum* H.B.K.

94. *Tagetes crassiceps* Blake (Det. Blake)

105. *Winthostachys mollis* (H.B.K.) Epl. (Det. Epling)

189. *Neonelsonia acuminata* (Benth.) C. & R.

Pennell (Colombia)

2262. *Ribes andicola* Janecz. (Compared with type at Geneva)

2431. *Dendrophthora squamigera* Benth. (Compared with type at Kew)

3446. *Vismia dealbata* H.B.K. (Compared with type at Paris)

Rusby (Bolivia)

746. *O. pseudo-violacea* R. Knuth, TYPE

755. *O. medicaginea* H.B.K.

758. *O. buchtienii* (Rusby) R. Knuth

Rusby (Bolivia)

468. *R. boliviensis* Focke (rather than *R. sellowii*)

474. Aff. *R. guayanensis* Focke (not *R. bogotensis*)

476. *R. buchtienii* Focke

Rusby & Pennell 778 sp. nov. unnamed. Distr. as *Centropogon* sp. ✓

Burmeistera 997 sp. nov. unnamed. Distr. as *Siphocampylus* sp.

Rusby (Bolivia)

960. *Nephromeria axillaris acutifoliola* (Kuntze) Schindl.

961. *Desmodium affine* Schlecht.

964. *Meibomia limensis* (Hook.) Kuntze

976. " *scorpiurus* (Sw.) Kuntze

Rusby 637 *sparsipilus* Wim. Distr. as (?) *dubius* Zahlbr. *Siphocampylus*

Rusby & Pennell 947 *venosus* Gl. var. *neivanus* Wim. *Siphocampylus*

Rusby

2040. *Weinmannia trollii* O. C. Schmidt

Reported by N.Y. Bot. Gard. June 1938.

Det. Suessenguth;

Rusby & Pennell 97. *Iresine elatior* Rich.

160. *Alternanthera halimifolia* Standley var.

3827. *Chamissoa altissima* HBK.

3858. *Alternanthera polygonoides* R. Br. sens. lat.

4050. *Iresine elatior* Rich.

Mulford Biol. Expl.

2057. *A. pterisantha* O. C. Schmidt

1162. *A. pilosa* H. B. K.

1776. " "

1857. " "

145. " *boliviensis* Kuntze

601. " "

502. " "

1164. " *odoratissima* L.

Aristolochia

Eupatoriums and eupatorioid Compositae collected in Bolivia by the
Mulford Expedition. By H. H. Rusby - 1921.

Recd. at Gray Herb. about June 1st, 1922. Determined by B. L. Robinson.

- 68 *Ageratum conyzoides* L.
- 96 *Eupatorium scopulorum* Wedd.
- 105 *Ophryosporus piquerioides* (DC.) Benth. & Hook. f.
- 120 *Stevia*
- 153 *Ophryosporus Cumingii* (Sch.-Bip.) Benth. & Hook. f.
- 168 *Stevia*
- 185 *Eupatorium Sternbergianum* DC.
- 267 *Stevia*
- 304 *Vernonia*
- 376 *Eupatorium macrophyllum* L.
- 424 *Ophryosporus piquerioides* (DC.) Benth. & Hook. f.
- 626 *Mikania Haenkeana* DC.
- 677 *Ageratum conyzoides* L.
- 689 *Eupatorium laevigatum* Lam.
- 918 *Ageratum conyzoides* L.
- 919 *Ageratum conyzoides* L.
- 1317 *Eupatorium kleiniioides* HBK.
- 1350 " *ivaefolium* L.
- 1353 *Mikania officinalis* Mart.
- 1426 *Eupatorium ivaefolium* L.
- 1485 " *hecatanthum* (DC.) Bak.
- 1685 " *ivaefolium* L.
- 1713 " *kleiniioides* HBK. (n.d.)
- 1983 *Mikania psilostachya* DC.
- 2145 " *rubella* Lingelsheim.
- 2146 *Ageratum conyzoides* L.
- 2147 *Eupatorium morifolium* HBK. (n.d.)

Flora of Arizona
Interesting localities, Rusby's collection of 1883.

- 506 *Ranunculus cardiophyllus*, Hook, Harts Rancho
 513 *Arabis perfoliata*, Lam Prescott,
 514 *Streptanthus cordatus*, Nutt. Yampai,
 515 *Draba asprella*, E. L. S. n. sp. Lynx Creek,
 516 " *Carolina*, var *micrantha*, Near Prescott.
 522 *Wisligeria refracta*, Eng. Holbrook.
 524 *Krameria parvifolia*, Benth., banks of Col-
 orado at mouth of Diamond Creek,
 525 *Polygala Rusbyi*, E. L. S. n. sp. Banghart's
 Rancho, and Yampai.
 526 " *scoparia*, HBK. Oak Creek.
 528 *Silene acaulis*, L. summit of Mt. Humphreys
 530 } *Arenaria scabrella*, E. L. S. n. sp. "
 531 } "
 532 " *Rusbyi* " " " " " Throughout the
 Juniper forests of Navajo Co.,
 537 *Sphaeralcea pendleri*, Gray Prescott,
 539 *Abutilon parvulum*, Banghart's Rancho
 540 *Linum Nev.-Mexicanum*, Throughout
 San Francisco Forest.
 542 *Larrea Mex.*, Moir, A very small-leaved
 and very glandular form on
 bank of Colorado Riv. at mouth of
 Diamond Creek.
 543 *Geranium cespitosum*, James Flagstaff
 545 *Oxalis decaphylla*, ^{HBK.} Mt. Humphreys
 549 *Zizyphus obtusifolius*, Eng. Near Peach Springs
 553 *Lupinus concinnus* Agardh Lynx Creek,
 557 *Trifolium Kingii*, Wats. Bill Williams Mt.
 561 *Hosackia Wrightii*, Eng. Flagstaff.
 564 *Dalea Wrightii*, Gray Beaver Head.
 567 *Robinia Nev.-Mexicana*, Gray at Hells canon

a var with nearly white flowers and
cordate leaflets.

- 5-68 *Astragalus Pattersonii*, Eng, Casimiro
5-72 " *Brandegeei*, Baughart Rancho
5-73 " *Rushii*, E. L. & n. sp. Mt. Agassiz.
5-75- " *Matthewsii*, Mt. One specimen
at Williams

~~5-84 *Prunus demissa* (?) specimen sent
Haworth.~~

- 5-89 *Senecio triflorus*, Pursh. Very abundant on
Bill Williams Mt.
5-90 " *Rossii*, Sizing, Mt. Humphreys.
5-91 *Potentilla subviscosa*, E. L. & n. sp. Hapstott.
5-96 *Dryas depauperata*, Eng, Head of
Oak Creek.
5-99 *Ribes Rushii*, E. L. & n. sp. San Francisco Mt.,
& Bill Williams Mt.
601 *Scamm rhodanthemum*, Eng Mt. Humphreys
602 *Lythrum alatum*, Pursh. var. *linearifolium*
Eng, Peach Springs.
604 *Oenothera chamaenerioides*, Eng & Clifton
& Lynx Creek
612 *Mentzelia Wrightii*, Eng Beaver Bend,
613 " *multiflora*, " Near Prescott
614 " n. sp. Bellemont
617 *Mammillaria vivipara*, Hawt
forma sphacacantha Eng,
Hapstott.
620 *Cereus stramineus* Eng, Beaver Head.
621 *Opuntia Bigelovii* " Near Peach Springs

- 622 *Opuntia acanthocarpa* Eng & Big, Peach
Springs & adjacent country.
633 " *Whipplei* Eng & Big, Navajo
Springs & Prescott.
624 " *Chlorotica* sparingly throughout
southern part of Yavapai Co.
(Not collected) *Opuntia basilaris*, Hackberry.
638 *Lonicera involucrata*, Barlow, Mt. Humphreys.
640 *Salix Wrightii*, Eng, about Prescott.
642 " *microphyllum*, " Baughart Rancho.
643 *Valeriana dioica*, L., Bill Williams Mt.
647 *Hymenothrix Wislizeni*, Eng, Peach Springs.
65-0 *Tetradymia glabrata*, Casimiro.
65-1 *Bigelovia Rushii*, E. L. & n. sp. Holbrook
65-1 1/2 " *spatulata*, Prescott.
65-3 *Helianthus Maximilianae*, Schrad, South
of Hapstott.
65-4 *Lygodesmia spumosa*, Hapstott.
65-7 *Riddellia Tagetina*, Johnsons Canon.
65-8 *Taraxacum dens-leonis* Prescott.
65-9 *Dicoria Brandegei*, Holbrook.
660 *Townsendia Arizonica*, Holbrook &
Ash Fork.
661 *Coreopsis Drummondii*, Oak Creek.
663 *Malacothrix Rushii*, E. L. & n. sp. Baugh-
art Rancho.
665- *Senecio aureus*, L., var *crispus*, Rush.,
Lynx Creek.
669 " ~~ase~~ *sp. Arizonicus*, E. L. & n. sp.
Lynx Creek.

- 670 *Senecio Franciscanus*, E. L. & n. sp.
Klapstiff.
- 671 " *Actinella*, E. L. & n. sp. Klapstiff.
- 672 " *Aster Mexicana*, Gray, Oak Creek.
- 673 *Actinella Bigelovii*, Gray Klapstiff & n.
- 674 " *scaposa* Nutt. Yampai
- 675 " *biennis* Oak Creek & Beaver Head
- 676 *Eucelia frutescens*, Hooker
- 676 $\frac{1}{2}$ " *Rusbyi*, E. L. & n. sp. Oak Creek
- 677 *Baccharis Wrightii*, Gray ^{Near} Prescott
- 678 " *brachyphylla*, Yavapai Co.
- 680 *Munseria Hookeriana*, Near Casimiro.
- 681 *Lactuca pulchella* DC. Mt. Agassiz.
- 682 *Oxytaenia acerosa*, Halbrook.
- 683 *Sol. multiradiata*, var *seropulorum* Gray
Mt. Humphreys.
- 684 " *nana*, Near Klapstiff.
- 685 *Aster tanacetifolius*, Ash Fork.
- 686 " *canescens*, Throughout.
- 687 " *paniculatus*, Albuquerque, N.M.
- 688 " *ericifolius* Throughout.
- 689 " *foliaceus*, var *Burkei*, Harts Ranch.
- 690 " *spinosus*, Albuquerque, N.M.
- 691 *Eriogon subdecurrens*, Mt. Agassiz.
- 691 $\frac{1}{2}$ " *flagellaris*, Bill Williams Mts.
- 692 *Hymenopappus luteus*, D. Francisco Forest.
- 693 " *tenifolius* " " "
- 694 *Perezia Wrightii*, common
- 697 *Encaphalium strictum* Mt. Agassiz
- 700 *Artemisia Bigelovii*, Lemmon & C.

- 702 *Dysodia Cooperi*, Gray, Hackberry.
 703 *Lepachys taylori* Albuquerque, New
 704 " *columnaris*, Santa Fe, "
 705- *Bahia oppositifolia*, L & S, Albuquerque "
 706 *Pachyrrhiza Hapshipia*, Cubero, N. M.
 707 *Cnicus undulatus*, Baugharts Rancho
 708 " *arizonicus* Oak Creek
 709 " *ochrocentrus*, Near Beech Springs
 710 " *Drummandii*, Var? Harts Rancho
 713 *Lobelia splendens*, Oak Creek
 714 *Campanula Schenckzeri*, Clarks Valley
 718 *Manodora scoparia*, Beech Springs
 722 *Acerates auriculata*, Prescott &c
 723 *Gentiana Thuberi*, Glassoff
 724 *Erythraea calycosa*, var. *arizonica*
 Beech Springs.
 725- *Trasaca paniculata*, Oak ~~Creek~~
 728 *Silene linearis*, very stout and
 branching at Munro's Rancho
Silene Rusbyi, throughout forest region,
 and like all the other *Silenes* var-
 iable as to length of corolla
 tube, foliage very variable.
 731 " *divaricata*, ~~Oak Park~~
 733 " *rigida*, near var *acerosa*, Halbrook
 733½ " *humilis*, with a hard woody
 perennial root, Halbrook
 734 " *tenniflora*, Bentth, Lynx Creek.
 735 *Phlox longifolia* var. *brimfolia* } Oak Park
 736 " " " *Stansburzi* } &c

737 *Phlox speciosa*, var. *Howdianensis*
Williams

739 *Phacelia hispida*, north of Prescott

740 " *malle*, E. L. & n. sp. " " "

741 " *Rushyi* " " " " "

742 " *Dremonia*, Gumpai,

743 " *arizonica* north of Prescott,

744 *Eriodictyon angustifolium*, Oak Creek
(I think this species is not distinct
from *E. glutinosum*)

745 *Eritrichium micranthum*, var. *Prescottii*.

746 *Echinopspermum pinetorum*, E. L. & Casimiro.
& Mogollon Mts., N. M.

748 *Eritrichium setosissimum* Williams
Flagstaff.

750 " *barbigerum*, Casimiro.

751 " (specimen sent - herewith)
Ash Fork.

75-2 *Lithospermum cobrense*, E. L. & Williams

75-2 $\frac{1}{2}$ *Convolvulus incanus*, Beaver Creek

75-4 *Solanum Xanthi*, Gray, Oak Creek.

75-5 *Physalis Wendleri*, Gray Casimiro.

75-9 *Castilleja minor* Oak Creek.

767 *Pedicularis Parryi*, M. Humphreys

772 *Pentstemon Palmeri*, a dwarf form
at Peach Springs.

773 " *Rushyi*, E. L. & n. sp. Baughart
Rancho, and Gumpai.

775- " *vigatus* Flagstaff.

780 *Verberna polystachya*, near Flagstaff.

781 *Aphyllon multiflorum* Casimiro.

786 *Hedeoma procumbens*, E. L. & n. sp. Flagstaff.

787 " *thyrsoides*, Oak Creek

788 " " var. *oblongifolia*
Gumpai, Co.

805 *Cladanthus suffruticosus*, Colorado River

806 *Eriogonum deflexum*, Hackberry.

807 " *divaricatum*, Lemmon

808 " *corymbosum*, Casimiro.

809 " *Rushyi*, E. L. & n. sp. near Casimiro

810 " *vininum* Lynx Creek

811 " *Palmeri*, Hackberry.

812 " *ceruinum* Flagstaff.

813 $\frac{1}{2}$ " *rotundifolium*, Mojave, N. M.

816 " *blavum* Casimiro.

~~816~~ 817 " *inflatum* Peach Springs

818 " *racemosum* Flagstaff.

821 *Euphorbia dictyospermum* } near Mt. Verde.

822 " *strictospora* }

823 " *Wendleri* Everywhere

824 " *setiloba*, Hackberry

827 " *zygophylloides* "

831 *Pinus flexilis* } M. Humphreys.

832 " *aristatus* }

833 *Agave Mahensis*, Peach Springs.

836 *Smilacina sessilifolia*, Williams Mts.

842 $\frac{1}{2}$ *zigadenus Spauldingi*, Rushy
Base of M. Humphreys.

PLANTS OF NEW MEXICO AND ARIZONA.

— — — — —

The following is a partial list of my specimens. The *Juncaceae*, *Cyperaceae* and *Gramineae* are still undetermined, and three boxes of other plants are yet to arrive. A supplement will be published later, giving the additional species, and naming those species marked doubtful in this list, which has been hastily prepared.

The price of specimens is \$8 per hundred, no selection being allowed beyond the selection of entire Orders. When any further selection is made, \$10 per hundred will be charged. When the full set is taken only \$5 per hundred will be charged. H. H. RUSBY, Franklin, N. J.

- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Clematis ligusticifolia, Nutt. (Fruit.) 2 " Bigelovii, Torr. 3 Thalictrum Fendleri, Eng. 4 Anemone decapetala, L. 5 Delphinium azureum, Mx.? 6 Aconitum Fischeri, Reich. 7 Argemone hispida, Gray? * 8 Eschscholtzia Californica, Cham., var. 9 Corydalis aurea, Willd., var. occident-
alis, Gray. 10 Arabis Holboellii, Hornem. 11 " var. patula. 12 Dryopetalon runcinatum, Gray. 13 Streptanthus carinatus, Wright. 14 Vesicaria Gordoni, Gray. 15 " purpurea, Gray. 16 " stenophylla, Gray. 17 Draba cuneifolia, Nutt. 18 " streptocarpa, Gray. 19 Sisymbrium diffusum, Gray. 20 " canescens, Nutt. 21 " sp. 22 " 23 Erysimum asperum, DC. 24 Thelypodium integrifolium, Endl. 25 " linearifolium, Watson. 26 " Wrightii, Gray. 27 Lepidium intermedium, Gray. (Petaled
form.) * 28 Thlaspi alpestre, L., var. purpurea. 29 Polanisia uniglandulosa, DC. 30 Viola Canadensis, L. 31 Polygala puberula, Gray. 32 Monarda Wrightii, Gray. 33 Krameria secundiflora, DC. 34 Silene Greggii, Gray. 35 Lychnis Drummondii, Watson. 36 Cerastium nutans, Raf., var. 37 Stellaria Jamesii, Torr. 38 Arenaria saxosa, Gray. 39 " var.? 40 Drymaria sperguloides, Gray. 41 " tenella, Gray. * 42 " linearifolium 43 Talinum aurantiacum, Engelm. 44 " confertiflorum, E. L. Greene. * 45 Claytonia perfoliata, Donn. 46 Sidalcea malviflora, Gray. 47 " n. sp.? 48 Malvastrum coccineum, Gray, var. 49 " | <ul style="list-style-type: none"> 50 Malvastrum leptophyllum, Gray. 51 " hastatum, Gray. 52 Anoda hastata, Cav. 53 Linum Neo-Mexicanum, E. L. Greene. 54 " aristatum, Engelm. * 55 " n. sp.? 56 Tribulus grandiflorus, B. & H. 57 " maximus, L. 58 Geranium Fremonti, Torr. 59 " Richardsoni, Fisch. & Mey. 60 Ptelea angustifolia, Benth. * 61 Pachystima Myrsinites, Raf. * 62 Rhamnus sp. <i>Californica, var. tenuis</i> 63 " 64 Ceanothus Fendleri, Gray. 65 " Greggii, Gray. 66 Vitis Arizonica, Engelm. 67 Sapindus marginatus, Willd. 68 Negundo aceroides, Moench. * 69 Acer grandidentatum, Nutt. (Fruit.) 70 Rhus microphylla, Gray. (Fruit.) * 71 " <i>trilobata, Nutt., var. ?</i> <i>aromatica, var. ?</i> 72 " 73 Croton lupulina, Raf. 74 Lupinus argenteus, Pursh. 75 " pusillus, Pursh? 76 " Sitgreavesii, Watson. * 77 Hosackia Wrightii, Gray? <i>(or a n. sp.) rigida</i> 78 Psoralea floribunda, Nutt. 79 Dalea albiflora, Gray? (May be new.) 80 " alopecuroides, Willd. 81 " formosa, Torr. 82 " filiformis, Gray. 83 " Jamesii, T. & G. 81 " polygonoides, Gray. 85 " Wislizeni, Gray. 86 Petalostemon exilis, Gray. 87 " tenuifolius, Gray. 88 Robinia Neo-Mexicana, Gray. * 89 " (With hispid fruit.) * 90 Astragalus Arizonicus, Gray. <i>var. amphioxys</i> 91 " Cobrensis, Gray. 92 " Missouriensis, Nutt. 93 " Nuttallianus, DC. 94 " triflorus, Gray. 95 Glycyrrhiza lepidota, Pursh. 96 Desmodium Neo-Mexicanum, Gray. 97 " sp. ? <i>Michauxii, Torr.</i> 98 Vicia exigua, Nutt. 99 " leucophaea, E. L. Greene. 100 " pulchella, HBK. |
|---|---|

- 101 *Vicia Americana*, Muhl.
 * 102 " var. *linearis*, Watson.
 103 *Lathyrus paluster*, L., var.
 104
 105 *Cologania longifolia*, Gray.
 106 *Phaseolus macropoides*, Gray.
 107 " *retusus*, Benth.
 108 " *Wrightii*, Gray.
 109 *Sophora sericea*, Nutt.
 110 *Hoffmanseggia Jamesii*, T. & G.
 111 " *stricta*, Benth.
 112 *Cassia baubinioides*, Gray.
 113 *Prosopis juliflora*, DC. (Fruit.)
 * 113a *Mimosa dysocarpa*, Benth.
 114 " *pubescens*, Benth.
 115 *Acacia constricta*, Benth.
 116 " *filicina*, Willd.
 117 " *sp.?*
 ? * 118 *Calliandra conferta*, Benth.
 119 *Prunus Andersoni*, Gray.
 120 *Spiraea discolor*, Pursh.
 121 " var. *ariaefolia*, Watson.
 122 *Rubus Neo-Mexicanus*, Gray. *delin.*
 123 " *strigosus*, Mx.
 124 " *trivialis*, Mx.
 125 *Cercocarpus parvifolius*, Nutt.
 126 *Cowania Mexicana*, D. Don.
 127 *Fallugia paradoxa*, Endl.
 128 *Potentilla Thurberi*, Gray.
 * 129 *Amelanchier alnifolia*, Nutt. *fl. a. latifolia*, var.
 130 *Fendlera rupicola*, Engelm.
 131 *Ribes pinetorum*, E. L. Greene. (Lvs.)
 132 *Sedum Wrightii*, Gray.
 133 *Eriogonum Hartwegii*, Benth.
 134 " var. *lavandulifolia*,
 135 " *pinnatifida*, Nutt. [Watson.
 136 " *trichocalyx*, Nutt.
 137 *Gaura suffulta*, Engelm.
 138 *Mentzelia albicaulis*, Dougl.
 * 139 " *aspera*, L.
 140 " *Wrightii*, Gray.
 141 *Megarhiza Gilensis*, E. L. Greene.
 142 *Sicyos*
 142a *Echinocactus wislizeni*, Engelm.
 143 *Cercus Fendleri*, Engelm. (No fruit.)
 144 " *phoeniceus*, Engelm. (No fruit.)
 145 *Opuntia arborescens*, Engelm.
 146 " *sp.?* (Fruit.)
 147 *Cymopterus montanus*, T. & G., var. *purpureus*, Gray.
 * 147a *Ligusticum scopulorum*, Gray, apparently.
 148 *Pucedanum nudicaule*, Watson.
 149 *Lonicera dumosa*, Gray.
 150 *Symphoricarpos oreophilus*, Gray.
 151 *Mitracarpum breviflorum*, Gray.
 152 *Houstonia n. sp.*
 153 " *sp.?*
 154 *Galium Fendleri*?
 155 " *n. sp.?*
 156 *Valeriana edulis*, Nutt.
 * 157 *Stevia serrata*, Cav.
 158 *Carpochaeta Bigelovii*, Gray.
 159 *Baccharis carulascens*, Gray.
 * 160 " *ptarmicifolia*, DC., var.
 * 161 *Aciphaga acerosa*.
 162 *Parthenium incanum*, HBK.
 163 *Zinnia grandiflora*, Nutt.
 164 *Sanvitalia Aberti*, Gray.
 165 *Baileya multiradiata*, Harv. & Gray.
 166 *Baileya pleniradiata*, Gray.
 167 *Chrysopsis villosa*, Nutt., var.
 168
 169 *Galinsoga parviflora*, Cav.
 170 *Viguiera cordifolia*, Gray.
 * 171 *Verbesina encelioides*, Benth. & Hook.
 172 *Gymnolomia multiflora*, Benth. & Hook.
 173 *Riddellia tagetina*, Nutt.
 174 *Troximon aurantiacum*, Hook.
 175 *Malacothrix Fendleri*, Gray.
 176 *Helenium Hoopesii*, Gray, var.?
 177 *Hieracium n. sp.*
 178 " *sp.?*
 * 179 *Hymenopappus flavescens*, Gray.
 180 " *sp.?*
 181 *Perezia nana*, Gray.
 182 " *Wrightii*, Gray.
 183 *Layia glandulosa*, Hook. & Arn.
 184 *Carmichaelia tenuiflora*, DC.
 185 *Pectis lilipes*, Gray.
 186 " *angustifolia*, Torr.
 187 *Gaillardia pulehella*, Foug.
 188 " *pinnatifida*, Torr.
 189 *Gnaphalium strictum*, Gray.
 190 *Melampodium cinereum*, DC.
 191 *Aster adscendens*, Lindl.
 192 " *tanacetifolius*, HBK.
 193 " *multiflorus*, Ait.
 194 " *canescens*, Pursh.
 195 *Erigeron macranthus*, Nutt.
 196 " *glabellus*, Nutt.
 197 " *n. sp.?*
 198 " *divergens*, T. & G.
 199 " *delphinifolius*, Willd.
 200 " *flagellaris*, Gray.
 201 *Bigelovia Douglasii*, Gray.
 202 " *graveolens*, Gray.
 203 *Trixis corymbosus*.
 204 *Gutierrezia eriocarpa*, Gray?
 * 205 " *Euthamia*, T. & G.
 206 *Grindelia n. sp.*
 207 *Bahia absinthifolia*, Benth.
 208 *Hymenatherum polychaetum*, Gray.
 209 " *pentachaetum*, DC.
 210 *Aphanostephus Arizonicus*, Gray.
 211 *Palafolia Hookeriana*, T. & G.
 212 *Seneio aureus*, L., var.
 213
 214 " *longilobus*, Benth.
 215 " *Rusbyi*, E. L. Greene.
 216 " *n. sp.?*
 217 *Aplopappus Parryi*, Gray.
 218 " *laricifolius*, Gray.
 219 " *spinulosus*, DC.
 220 *Cosmos bipinnatus*, Cav., var. *parviflorus*, Gray.
 221 *Stephanomeria minor*, Nutt.
 222 " *Thurberi*, Gray.
 223 *Hymenothrix Wrightii*, Gray.
 224 *Cnicus Neo-Mexicanus*, Gray.
 225 " *Parryi*, Gray.
 226 " *undulatus*, Gray.
 227 *Solidago Missouriensis*, Nutt.
 * 228 " *Bigelovii*?
 229 *Villanova chrysanthemoides*, Gray.
 230 *Ambrosia psilostachya*, DC.
 231 *Artemisia Ludoviciana*, Nutt., var. [Mexicana, Gray.
 232 " " var.
 233 " " "

- 234 *Artemisia franserioides*, E. L. Greene.
 235 *Kuhnia eupatorioides*, L.
 236 *Brickellia oligantha*, Gray.
 237 " *grandiflora*, Nutt.
 238 " *Wrightii*, Gray.
 239 " *floribunda*, Gray.
 240 " *sp.?*
 241 " *sp.?*
 242 *Eupatorium Berlandieri*, DC.
 243 *Berlandiera lyrata*, Benth. *multiflora*?
 244 *Pyrrhopappus Rothrockii*, Gray, var.
 * 245 *Heterospermum tagetinum*, Gray.
 246 *Actinella Richardsonii*, Nutt.
 247 " *odorata*, Gray.
 248 *Encelia frutescens*, Gray?
 249 *Thesperma gracilis*, Gray.
 250 *Campanula rotundifolia*, L., var.
 251 *Arctostaphylos pungens*, HBK.
 252 *Primula Rusbyi*, E. L. Greene.
 253 *Forestiera Neo-Mexicana*, Gray.
 254 *Fraxinus pistaciifolia*, Torr.
 255 *Menodora scabra*, Gray.
 256 *Ansonia Palmeri*, Gray.
 257 " var. *molle*.
 258 *Aselepias involucrata*, Engelm.
 259 " *longicornu*, Benth.
 260 " *brachystephanu*, Engelm.
 261 *Philibertia cynanchoides*, Gray.
 262 *Gentiana Amarella*, L., var.
 263 " *Rusbyi*, E. L. Greene.
 * 264 *Iladenia Rothrockii*, Gray.
 265 *Collomia aggregata*, T. & Porter.
 266 " *longiflora*, Gr. (Sp. very poor)
 267 " *Thurberi*, Gray.
 268 *Gilia aurea*, Nutt.
 269 " *floccosa*, Gray.
 270 " *inconspicua*, Dougl.
 271 " var. *parviflora*.
 272 " *Nuttallii*, Gray, var.?
 273 *Eriodictyon glutinosum*, Benth.
 274 *Nana dichotomum*, Ruiz & Pav., var. *angustifolium*, Gray.
 275 *Phacelia circinata*, Jacq.?
 276 " *crenulata*, Torr.
 277 " *integrifolia*, Torr.
 278 " *micrantha*, Torr.
 279 " —, E. L. Greene.
 280 *Coldenia hispidissima*, Gray.
 281 *Echinosperrum Redowskii*, Lehm., var. *cupulatum*, Gray.
 282 " *ursinum*, E. L. Greene.
 283 *Eritrichium Jamesii*, Torr.
 284 " *leiocarpum*, Watson.
 285 " *pterocaryum*, Torr.
 286 *Heliotropium convolvulaceum*, Gray.
 287 " *Curassavicum*, L.
 288 *Lithospermum angustifolium*, Mx.
 289 " *multiflorum*, Torr.
 290 " *Cobrense*, E. L. Greene.
 291 *Mertensia paniculata*, Don.
 292 *Onosmodium Thurberi*, Gray.
 293 *Convolvulus incanus*, Vahl.
 294 *Cuscuta squamata*, Engelm.
 * 295 " *sp.?*
 296 *Evolvulus argenteus*, Pursh.
 297 " *Arizonicus*, Gray.
 298 " *sericeus*, Swz.
 299 *Ipomoea costellata*, Torr.
 300 " *Mexicana*, Gray.

- 301 *Ipomoea muricata*, Cav.
 302 *Chamaesaracha Coronopus*, Gray.
 303 " *sordida*, Gray.
 304 *Datura meteloides*, DC.
 305 *Lycium barbinodum*, Miers. (Fruit.)
 306 " *pallidum*, Miers.
 307 *Margaranthus solanaceus*, Schlecht.
 308 *Nicotiana trigonophylla*, Dunal.
 309 *Physalis viscosa*, L.
 310 " *sp.?*
 311 *Solanum elaeagnifolium*, Cav.
 312 " *Jamesii*, Torr.
 313 " *tuberosum*, L.
 314 *Antirrhinum maurandioides*, Gray.
 315 *Castilleja integra*, Gray.
 316 " *linariaefolia*, Benth.
 317 " *n. sp.?*
 318 *Conoclea intermedia*, Gray.
 319 *Cordylanthus Wrightii*, Gray.
 320 *Maurandia Wislizeni*, Engelm.
 321 *Mimulus luteus*, L., var.
 322 *Orthocarpus purpureo-albus*, Gray.
 323 *Pedicularis Mogollonicus*, E. L. Greene.
 324 *Pentstemon acuminatus*, Dougl.
 325 " *ambiguus*, Torr.
 326 " *linarioides*, Gray.
 327 " *puiceus*, Gray.
 328 " *secundiflorus*, Benth.
 329 " *spectabilis*, Thurber.
 330 *Scrophularia Californica*, Cham.
 331 *Aphyllon fasciculatum*, Gray.
 332 *Conopholis Mexicana*, Gray.
 333 *Chilopsis saligna*, Don.
 334 *Anisacanthus Thurberi*, Gray.
 335 *Lippia nodiflora*, Mx.
 336 *Verbena bracteosa*, Mx.
 337 " *bipinnatifida*, Nutt.
 338 *Dracocephalum parviflorum*, Nutt., var.?
 339
 340 *Hedeoma Drummondii*, Benth.
 340a " *dentata*, Torr.
 341 *Monarda fistulosa*, L.
 342 *Salvia ballotaeflora*, Benth.
 343 " *Henryi*, Gray.
 344 " *lanceolata*, Willd.
 345 " *subincisa*, Benth.
 346 *Stachys coccinea*, Jacq.
 * 347 *Tetradlea Coulteri*, Gray.
 348 *Plantago Patagonica*, Jacq., var. *gnaphaloides*, Gray.
 349 *Mirabilis multiflora*, Gray.
 350 " *longiflora*, L.
 351 *Boerhaavia spicata*, Choisy.
 * 352 " *purpurascens*, Gray.
 353 *Oxybaphus nyctagineus*, Sweet.
 354 " *coccineus*, Torr.
 355 *Allionia incarnata*, L.
 356 *Selinocarpus chenopodioides*, Gray.
 357 " *difusus*, Gray.
 358 *Polygonum tenue*, Mx.?
 * 359 *Eriogonum Abertianum*, Torr.
 360 " *annuum*, Nutt.
 361 " *alatum*, Torr.
 * 362 " *Wrightii*, Torr.
 363 " *pharnaceoides*, Torr.
 * 363a " *microthecum*, Nutt., var. cf. *fusum*, T. & G.
 363b " *Wrightii*, Torr.
 363c " *trichopodium*, Torr.

Y have a B. Benth. in line.

- + 363d *Eriogonum polycladon*, Benth.
 364 *Eurotia lanata*, Moq.
 364a *Spirostachys occidentalis*, Watson.
 × 365 *Teloxys cornuta*, Torr.
 366 *Gomphrena caespitosa*, Torr.
 → 367 *Urtica gracilentia*, E. L. Greene. = *U. Braunii*
 368 *Celtis reticulata*, Torr. or *bracteata*?
 369 *Morus parvifolia*.
 370 *Platanus* sp.? (Fruit.)
 371 *Salix longifolia*, Muhl.
 372 " *lasiolepis*, Benth.
 273 *Populus Fremontii*, var. (?) Wislizeni,
 374 *Tragia* sp. [Watson].
 375 *Croton corymbulosus*, Engelm.
 376 " *Texensis*, Mull.
 377 *Acalypha Lindheimeri*, Mull.
 378 *Euphorbia bilobata*, Engelm.
 379 " *exstipulata*, Engelm.
 380 " *albomarginata*, T. & G.
 381 " *campestris*, Cham. & Schl.
 382 " var.?
 383 *Alnus oblongifolia*, Torr.
 384 *Quereus undulata*, Torr.
 385 " *hypoleuca*, Engel. (No fruit.)
 386 " *grisea*, Liebm.
 387 " *Emoryi*, Torr. (Lvs.)
 388 " *pungens*, Liebm.
 389 *Phoradendron flavescens*, Nutt., var.
 390 " *juniperinum*, Engelm.
 391 *Arceuthobium robustum*, Eng. (Lvs.)
 392 *Comandra pallida*, A. DC. (Fruit.)
 393 *Pinus strobiformis*. (Fruit.)
 394 *Picea Sitchensis*, Carr. (Fruit.)
 395 *Pseudotsuga Douglasii*, Carr. (Fruit.)
 396 " var. ? (Fruit.)
 397 *Cupressus Arizonicus*, E. L. Greene.
 398 *Ephedra antisiphilitica*, C. A. Meyer.

- 399 *Ilabenaria sparsiflora*, Watson. ?
 400 *Epipactis gigantea*, Dougl.
 401 *Iris Missouriensis*, Nutt. (Fruit.)
 402 *Sisyrinchium Arizonicum*, Rothr. (Fr.)
 403 *Hesperanthes Torreyi*, Watson.
 404 *Allium cernuum*, Roth.
 405 " *Bigelovii*, Watson.
 406 *Zygadenus porrifolius*, E. L. Greene.
 407 *Brodiaea pauciflora*, Gray.
 408 *Calochortus Gunnisoni*, Watson.
 409 *Yucca baccata*, Torr.
 410 " *angustifolia*, Pursh.
 411 *Agave Parryi*, Engelm. (Only fls.)
 412 *Nolina erumpens*, Watson.
 413 *Dasyllirion Wheeleri*, Watson.
 414 *Tradescantia tuberosa*, E. L. Greene.
 415 *Commelina linearis*, Benth.
 416 *Equisetum levigatum*, A. Braun.
 A *Gymnogramme hispida*, Mett.
 B *Notholaena sinuata*, Kaulf.
 C " *Hookeri*, D. C. Eaton.
 D " *dealbata*, Kunze.
 E " *Grayi*, Davenport.
 F *Cheilanthes Wrightii*, Hook.
 G " *lanuginosa*, Nutt.
 H " *Eatonii*, Baker.
 I " *Fendleri*, Hook.
 J " *Lindheimeri*, Hook.
 K *Pellaea atropurpurea*, Link.
 L " *Wrightiana*, Hook.
 M " " (the *P. mucronata* form.)
 N " *andromedaefolia*, Fee, var. *pubes-*
 cens, Baker.
 O *Woodsia Mexicana*, Fee, var.
 P " " "
 Q *Cystopteris fragilis*, Bernh.

Benne or Bene seed. *Pisammum Indicum* order *Pedaliaceae*. ^(of Malay origin)
 Castor-oil bean. *Ricinus Communis*. A native of India.
 Camphor tree. *Cinnamomum camphora* " " ? Order *Lauraceae*.
 Lognat. *Photinia (Erythotrya) Japonica*. China & Japan.
 Phoenix sylvestris found throughout India (the wild date-palm) is probably the tree
 from wh. the date-palm (*P. dactylifera*) was originally derived.
 Paddlewood, a tree of Guiana, *Rapidosperma excelsum* of the *Apocynaceae*.
 also called wheel-tree from the form of a section of the trunk.
 Sea-bean - Leguminous climbing plant, *Eutada scandens*, growing
 in the tropics of both hemispheres, and remarkable for the size of its
 pods. Beans two inches across and half an inch thick.

Benne Seed,
(Pisammus orientale)
 of the East Indies
 St. Helena, So. Caroline

Florence Ruth

Olga

~~Annie~~

Kamala

~~Lynne~~

Mr. Dorville

Erigeron microstachys
(white forget-me-not)

5-2

[Native]

61 - *Erechtthites* P. 269.
Cream-colored flowers.

81 - *Pyrrhopappus* p. 280.
Yellow flowers - (Stiff seeds.)

83. *Lactuca*

New Boston, N. H.

Machaëra patula
 Newport Cal. Dixon
Pecten moniliformis
Bulla Gouldiana
 (formerly *nebulosa*)

"

- 1 *Magnolia* (103)
grandiflora
- 2 *Coff. lachryma-Jobi*
 ("Job's Tear") (20)
- 3 *Cinnamomum*
camphora
 (Camphor Tree) (104)
- 4 *Eriobotrya Japonica*
 (Loquat or Japanese
 Plum) (105)
- 5 Fan Palm var. (106)
- 6 Date Palm var. (107)

"

I do not know the palm
 and there are a great
 many here, cultivated as
 shade trees. Throw away
 the dead machaëra - I put
 it in to show the size they
 attain. Never get them alive.

with this letter.
 the boy

- 1 ⁴⁰² *Chlorogalum pomeridianum* Tenuth
- 2 *Calochortus splendens*. Dougl
"Mariposa Lily"
- 3 Onion Lily (Greenhouse)
- 4 ³⁹⁹ *Schizodiscus Elliottii* (Greenhouse)
- 5 *Brodiaea capitata* Benth
- 6 ³⁹⁴ *Blomneria aurea* Kill.
"Golden Stars"
- 7 *Asparagus Sprengelii* (Greenhouse)
- 8 " *plumosus* "
- 9 *Yucca whipplei* Torr (native)
- 10 ⁴¹⁶ " *alvifolia* (Garden)
- 11 ³⁹⁸ *Gladiolus Lemonii*
- 12 *Amaryllis Johnsonii*
- 13 ⁴⁰⁰ *Lilium candidum*
- 14 *Fritillaria biflora* Lincl (native)
- 15 ³⁹⁷ "Chocolate Lily"
- 16 *Asparagus medeoloides* (Garden)
Smilax
- 17 ³⁹⁶ *Hookera hyacintha* Garden & Native
- 18 A Daisy that grows in my neighbor's
400 garden and I call "Lydia's daisy"
till I get a better name. The white
rays are long and the centre is blue

the foliage only - not very attractive
in the land of beautiful plants.

184⁴⁰ *Atriplex californica* Andr. Beach

194⁴¹ " *fractura* " "

20³⁹³ *Convolvulus occidentalis* (Native)

21 *Plagiobothrys canescens* Benth.

892 One of our many wild white
forget-me-nots

22³⁹¹ *Stephanomeria virgata* Benth.
(Composite)

23³⁹⁵ *Rosa californica* Cham

24 *Romneya Coulteri*. (Native)

White-Poppy

25 *Ipomoea hederacea* (Garden)
"Moonflower"

26 *Eucelia californica* (Native)
Composite

27³⁹⁰ *Streptanthus polygaloides* Gr
Cruciferae

- 1 Cultivated Daisy, white and blue. Note the heads plumed at both ends. Did you ever see that in a seed before?
- 2 ⁴² *Negundo californica* T & G.
Box Elder
- 3 Mesquit Bean. From Imperial Co. Cal.
Have no way of analyzing it but shall send for some ~~part~~ of the plant.
- 4 ⁴² *Quercus agrifolia* Nutt. "Live Oak". (This may or may not be *Laurel Oak*). Jefferson's? Devil-Burn.
- 5 *Cnicus lanceolatus* L.
Bull Thistle.
- 6 ⁴³ *Xanthoxylum spinosum* L.
- 7 ⁴⁸⁰ Cedar of Goa. (Shrub tree)
- 8 ⁴³⁴ *Foenicia alba*
- 9 ⁴²⁹ *Senecio asper*
- 10 ⁴³⁸ *Echinodorus rostratus*. Engelm.
Water Plantain
- 11 ⁴³⁵ *Convolvulus occidentalis* Gr
- 12 ⁴⁴¹ *Crepis virens*
- 13 *Rhus ovata*. (Lemonade berry)
- 14 ⁴⁴⁰ *Styrax californicus*. Torr.
- 15 ⁴³³ *Rhus* sp? (Garden - spotted species)
- 16 ⁴³¹ *Diospyros* Kaki Linne.
Japanese Persimmon.
- 17 ⁴³⁹ *Maurandia semperflorens*
Garden
- 18 ⁴³⁶ *Cornus Nuttallii* And.
Dogwood.

March 22. 1907

1. ²⁹³ *Anagalis arvensis* Linn
(Orange. (Pimpernel))
2. ²⁹⁴ *Eckscholtzia californica* Cham
(Orange.)
- 3 *Scirpus robustus* Pursh.
²⁹⁵ *Aliso* Canon. (Salt Marsh Bulrush)
- ²⁹⁶ 4 *Chrysopsis argentea* var *rudio*, Gray
- ²⁹⁷ 5 *Acacia decurrens*. Street Tr. (Black Acacia)
- ²⁹⁸ 6 *Polygonum lapathifolium* L.
Common Knotweed or Smartweed.
- ²⁹⁹ 7 *Datisca glomerata* B & H. Datisca
- ³⁰⁰ 8 *Solidago viridifolia* Gray.)
- ³⁰¹ 9 *Cucurbita perennis*. Gr
(Gourd - Mock Orange)
- 10 *Salix lasiolepis* B. & P.
³⁰² (Arroya Willow)
- ³⁰³ 11 *Solidago occidentalis* Nutt.)
- ³⁰⁴ 12 *Asclepias mexicana* Cav.)
(El Toro Canon.)
- 13 *Erodium moschatum* L'Her
³⁰⁵ (Musky Fillaree)
- 14 *Clematis lisantha*. Nutt.
³⁰⁶ *Laguna* Canon. Santiago Canon
- 15 *Galium angustifolium*. Nutt
³⁰⁷ Santiago Canon
- 16 *Brickellia californica* J. & G.
³⁰⁸ Santiago Canon.
- 17 *Pelargonium cucullatum*
³⁰⁹ (Lady Washington)
- 18 *Rhus diversiloba*
³¹⁰ Porir. Ort. 1 of Canon. (over)

1930⁸ *Chenopodium californicum*
Soap Plant - Mex.

2030⁹ *Macroceris macrochaeta*. Gray

2110¹⁰ *Senecio Douglasii* DB

2211³¹ *Baeria chrysostoma* F & M (Smushine)

2331³² *Franseria Hookeriana*

2431³³ *Cnicus virens* L. (wales Hemlock)

2531³⁴ *Cercocarpus ledifolius* Nutt.
(mountain ... organ) Santiago Canon.

2631³⁵ *Cnicus virens* (Red Thistle)

(27 *Conna* sp? (Large yellow-spotted))

28 *Pentstemon cordifolius* 316

29 *Asclepias occidentalis* Nutt 317

30 *Adenostoma fasciculatum* H & A 318

31 *Jasminum officinale*
(White Jasmine). Garden 319

32 *Dracopis glaucum* 320
Silverado Canon.

33 *Chenopodium anthelminticum* 321
(Wormseed)

34 *Pluchea campyralata* DC 322
Salt-Marsh Fleabane

(35 *Centauria melitensis* L
Star Thistle (sent last year))

36 *Ipomoea hederacea*
(Blue Moon Flower). Garden. 323

(37 *Clematis ligusticifolia*. Laguna Canon)

38 *Heliotropium graveolens* Nutt. 324

39 *Verbena anabala* (Purple Verbena) Garden 325

40 *Helianthus annuus*. Field Sunflower 326
Same name as your garden species
same as Russian Sunflower. but the seeds

very different.

- 41 *Teuoma jasmimoides* Garden 327
- 42 Flowering Beans. (I do not know the name
but the plant is well worth a place
in the garden, and I mean to plant it. 328
- 43 *Caltrullus vulgaris* var *citrinus*. 329
(Citron) Grows wild - immense
oblong, pale green, looking like
watermelons. Probably an escape
they are growing along the R.R. track.
The varietal name is my own, for
they are citron.
- 44 *Medicago sativa*. L. (Alfalfa) 330
- 45 *Lathyrus latifolius* (Perennial)
(Sweet-Pea 331
- 46 *Capricum annuum*. Linn ~~332~~
(Chile Peppers)
- 47 *Asparagus Sprengelii* (Greenhouse 332
- 48 *Xanthium canadense* var *echinatum* 333 333
- 49 *Acacia* sp? This is a shrub. I am
not up to acacias, but I hope to some 334
day find a way to know their specific 334
names so we have many here, trees
& shrubs, in cult.
- 50 *Begonia Englemanni*. (Garden) 335
- 51 *Calochortus splendens* Dougl. 336
(Mariposa Lily) Arch Bea.
- 52 *Rhynchospora microstachya*. Greene
Laguna Canon (White Forget-me-not 337
- 53 *Atriplex cordulata*. Jepson 338
- 54 *Punica granatum*. Cull
(Pomegranate)
- 55 *Heteromeles arbutifolia*. Roem.
(California Holly)
- 56 *Amaranthus chlorostachya* 339 339
(over)

57 *Agave americana* . (Century Plant)

58 *Psidium cattleianum* . (Guava) 341

Among these are quite a number where there are very few seeds. These I have made a note of, and will try to get more this summer. Meanwhile they will "hold down the name" as Mrs. Buzgik says.

19⁴³² *Baccharis viminea* D. C.
Walis Moley. (a willow like
shrub)

20 *Baeria chrysotheca*.
Simohine

21 *Foeniculum vulgare*.
Fennel. (wild here, probably
escaped)

22⁴⁴³ *Hemizonia Hermannii*
Fernand (one of many)

80

(red beans)

had 3 for 2.8.

Sal. G. ...
 ...
 ...
 ...
 ...

277

Fuzzy seeds

278

Opuntia 279 Yellow flowers
 acaciaceae. Flowers in ...

Mar. 10, 1906.

M. G. Dwyer

- 1) *Luffa cylindrica* Roun. 180
"Disheag" (Garden)
- 2) *Tageetes erecta*. Marigold (Garden)
- 3) *Plantago lanceolata* ^{sim} (Native) 182
- 4) *Malva parviflora*. Linne. (Native) 183
- 5) *Sonchus oleraceus*. Linne (Native) 184
- 6) *Australicum* Psa (Garden) 185
- 7) *Isomeris arborea* Nutt. (Native) 186
- 8) *Geranium zonale* (Garden) 187
- 9) "Gillyflower" (Garden) 188
- 10) *Scabiosa* (Garden) 189
- 11) Spotted agave; (Garden) 190
- 12) *Persimmon*
- 13) *Brassica campestris* L. (Native)
Wild Turnip. { Looks exactly like mustard
but differs in leaves, in seeds
and in seed capsules } 191
- 14) *Brassica nigra* Boiss. { Native
Mustard } 192
- 15) *Cupressus macrocarpa* 193
Monterey Cypress
- 16) *Ceania* sp? (small red blossom)
- 17) *Raphanus sativa* L. (Native)
Wild Radish 194
- 18) Onion Lily (Greenhouse) 195
- 19) *Foeniculum vulgare*. Adams' 196 (Native)
- 20) *Layia platiglossa* Gray. "Dilly Dips" (Native)
- 21) *Rhus integrifolia*. B. & K. (Native) 197
"Lemonade Berry" 198
- 22) *Picinus communis* (Red) (Native)
- 23) " " (Green) (Native) 199
- 24) *Sonchus* Peach 201
- 25) "Horse Beans"

- 26 Apricots. 202
- 27 *Lavatera asurgentifolia* ^{ferruginea}. Kill. 203
wied cut mostly introduced
- 28 *Mesembryanthemum crystallinum*
Native. "Ice Plant" 204
- 30 29 *Datura tatula*. (Native) We have
+ five species, the seeds of which are
alike. There are here besides *tatula*,
• *stramonium* and *discoles*.
Another year I shall take pains to
separate them, and will send
them to you as if you wish it. 205
- 30 *Amaryllis johnsonii* (Red Lily Garden) 210
- 31 *Lageaatrocinia Indica*. (Grape Myrtle.) 210
- 32 *Clea maculata*. (Cactus in greenhouse) 217
- 33 *Crocodium cicutarium*. L. (Native) 217
- 34 *Viburnum tinus*. (Laurestinus) 210
- 35 *Ficus elastica*. (Rubber Tree.) 211
- 36 *Melia azedarach*. (Umbrella Tree) 212
- 37 *Bidens pilosa* = *frondosa* Linn. (Native) 212
- 38 *Nicotiana glauca*. (Tree Tobacco) (Native) 213
- 39 *Erigeron canadensis*. 214 (Native)
- 40 *Phaseolus* var?
- 41 *Auricularia Bidwellii*. 215
- 42 *Medicago densicathrata*. "Bar Clover" 216
Native. I shelled out enough of these
for a trial but they seem to be mislaid.
I will send you more if I can find any -
it is late for them.
- 43 *Richardia africana*. (Colla Lily) 217
a poor lot, will try and find some better
- 44 *Auricularia Bidwellii*. There are seeds
inside the scales. 215
- 45 *Pinus Coulteri*. 217
- 46 *Opuntia prolifera*. 217 237 217
- 47 *Centaurea melitensis*. (Star Thistle) (Native) 217
- 48 *Passiflora caerulea*. (Passion Flower) 217

- 49 *Yucca whipplei*. Torr. (Native) 219
- 50 *Opuntia Engelmannii*. Puckley Pear
220 (Native)
- 51 *Argemone veneta*. Gray. (Native) 221
- 52 *Chaenactis glabriuscula*. (Native) 222
- 53 *Encelia Californica*. (Native) 223
- 54 *Verbesina densata*. (Native). Found²²⁴
by me, not before collected in the U.S.
- 55 *Melilotus parviflora*. (Yellow sweet-
clover. Native) 225
- 56 *Asparagus nudicola*. (Smilax)²²⁶
- 57 *Romneya Coulterii*. (Poppy. Native)²²⁷
- 58 *Daucus pusillus*. Michx.²²⁸
Rattlesnake weed. (Native)
- 59 *Asparagus plumosus*. Greenhouse Fern²²⁹
- 60 *Lathyrus vestitus*. (Wild Sweet Pea) 230
- 61 ~~*Croton Californicus*. (Native) 231~~
- 62 *Ereinocephalus setigerus*. (Native)
Turkey Mullerin. 232
- 63 *Fragaria Californica*. (Wild Strawberry)²³³
- 64 *Asclepias eriocarpa*. (Milkweed)²³⁴
- 65 *Amaranthus albus*. (Tumble Weed)²³⁵
- 42 *Medicago densaethrata*. (Bar Clover) 15
- 66 *Brodiaea capitata*. 236 236

Sitta carolinensis (Large) 1 Wintering 1 day
Sitta carolinensis (Small) 1 Carpenter ^{1st} 1 day
Physalia physalis (Larva) 1 Wintering 1 day
Physalia physalis (Larva) 1 Wintering 1 day

Dec. 15. Miss Folbush
 3 pieces Green Soap.

Nov. 20. Mrs. E. D. King continued
 4 pieces Soot 3
 Sea-bird worms 6 Lake Salts.
 Sea-weed 2 Monterey Bay
 Green ramblers 2 "
 4 pieces with Spots small 3 "
 Shrimp 1 "
 12 small. "
 1 in Tortoise shell 1 "
 Seaweed & Earthworms "

Feb. 25. 1898 Wheeler
 Sea-bean Yellow 1
 " Red Clay 1
 " Gray 1
 " Black 1
 " Black-eyed Susan 2
 Castor Beans 1
 " like Castor but small 2

Apr. 7 3 Red & Black Sea-beans
 May 1 Bahama Sea Peacock

July - Rice Thresh among
 father's things

Nov. Greenleaf - small ^{large opening} weevil.

" Mrs. Haw. Starfish.

Dec. 15 Mrs. W. E. Caspach 3 stones.
 2 pieces Oxide & Carbonate Luffshells
 1 piece coarse Granite

Mar. 14, 1899. Mrs. E. D. Runkley
 Green Beetles of Brazil
 Clay statu from Gargoyle in
 glass tube.
 Gorgonia (reddish)
 Sawfish Jaw (small)
 Tamarind pods. L. Vergonia
 Pressed Flowers.
 Sand from Sahara.
 Jaw of Parrotfish
 " "
 Worm tubes.

1 small piece black jack
with dolomite (broken) across
Hence.

Jack in mass - Spencer
Load (Spencer) ~~com~~ miss cut off.

From Wagner mine —
 Marcasite — find piece
 Lead — Largest piece H. D. *

Some time lead crystals with mar-
casite crystals. Harold

1 Hom lead crystal +
2 fine grained ~~granite~~ ^{basalt}
1 blanket vein mine + fault

gave me
Lupine seed - (Rabbit?) &
All from Persimmon seed.

Mar. 17, 1903 Mrs. E. P. Ramsay
Large Starfish — West Indies?
3 small Green Herons from St. Ignace
2 or 3 *Colaptes* (one broken)

Sea urchin very small 1 lb
Land Dollar tiny 12¢

Mr. Whelpley
May 1899. Flat light brown hairs 3
August 1899. Tiny stars. ^{Purple. T. P. 1899. 3} 10
10

Dec. 1. This is Phlogopite.
Thin crystals 5
Apatite (crystalline). 1

Templeton Constable

June 1899. Mrs. E. D. Ramsay (5)
 Militaire B dead
 Po. Cardin Dr. Min. gave me 5 Spruce

July 1900. ^{Pacific Gen. Mass.} Sea Urchins alive 54
5 to 12. Stars (Quite a number) 1 tiny me

Lichens

July 13 to 30, 1905 S. Orleans.
 Worm tubes? or coral? 2 or 3 sp. 3
 Sponges - one? or imm. sp.?
 Land dollars alive many
 " dead "

6 East Orleans Mass
 July 1900 Urchin dead
 several very small
 Stars the worst of the one
 good large live one.
 Cerata bright red 10
 Cerat crimson red 1
 and large claws.
 Claw of another crab? (Puma)

Oct. 19th Mrs. Bradshaw
 Sponge & species have kept 3 sp.

Corals - two species

Jan. 1901 Urchin Newport Bay Cal. 4
 " Arch Beach 2
 Sand dollars Newport Cal. 6

June 1901 Mrs. H. B. O'Connell
 Purpura cincta egg cases clump 1
 Large Barnacle 1

July 1901 E. Orleans
 Horse shoe crabs -

Sept. 1901. 2 Sea urchins large with spines -
 E. Orleans, N. L. Johnson

Oct. 1901 - Arrowhead - Mrs. Whitney Carthage -
 June 11, 1902 Melitaea (Dr. Hill) (dead) 10
 P. Cardine Mrs. E. D. Ramsey

" ~~St~~ Shark's tooth Fossil?
 Mrs. E. D. Ramsey about 50

Oct. 1901. Fossil Shell best Mrs. ^{Equity} Whitney
 Dec. " " Carthage, largest Harold
 " " " Carthage medium Spencer.

Oct 1901 - Large white Arrowhead Mrs. Whitney

1901 - 3 pieces pod of cocoas Miss Brad
 Some cocoas and
 3 Ivory nuts.

Sept to Jan 1902 From the Phoenix mine.
 Dark - small crystals - large pieces N. L. H.
 " larger " - small pieces
 From Phoenix Min. Prosperity Mo
 3 pieces silicate from
 Prosperity, 2 small gas 2 m.
 Calcutta 1 large 3 small pieces from
 Aurora Mo - Spencer. One

June 1913. These fossils from Texas
sent Mrs. J. G. Bayliff (Eugene)
(human 3 skulls and 1 broken arrowhead)

(98)

Jan. 28, 1903.

Litchi Nuts -

Chinese Nuts Seeds (2 kinds)
one each.

" Fruit. 1

" Food 3 kinds.

Chinese Tea in bundles. M. E. L.

Sapodilla seed. S. Am. M. G. D.

Walrus Lyria

"

Ground Wheat "

"

Lentils

"

"

June 1903 Chinese Sacred Candy! M. E. L.

" Nut similar to Litchi! "

Spondumene Sterling Mass.
June, 1903.

Pescadero Stones M. G. Day
Pescadero, Calif.

10 March. 14, 1906.

Histaria conqueana Benth. Chinese *Histaria*.

Gleditschia triacanthos L.

Three-thorned Acacia, or Honey Locust.

Catalpa bignonioides Walt.

Catalpa. Indian Bean.

Aristolochia Liphos, L'Her.

Pipe-Vine. Dutchman's Pipe.

Box of 14 fine specimens from H. S. Hin. Spring 1907.

Piece of glass (iridescent) from

Spanish galleon sunk in Caribbean Sea about a hundred years ago. The glass was brought up from the wreck after it had been under water forty years, Mr. Thos. Freeman when a boy, obtained it from the vessel that went to explore the wreck hoping to find treasure and which was, in turn, wrecked off Hamlet Harbor on the return trip. July, 1907.

Sand from Block Island M. G. D.

3 agates from Puget Isl. M. G. D. ^{Aug. 1907.}

2 Shark(?) eggs and 1 Skate Egg ^{Collected July 1907}

Dec. 1907. M. F. B.

Cornus — About 15 sp.

Cornus lanceolata. Bull Thistle.

Euphorbia splendens. Crown of Thorns.

White Jasmine Pods

Megarrhiza marah. Skeleton of the

Chilodactylus Bone

Lichens from Big Trees

Bracts from Bamboo — in garden.

Feather Moss — ^{Gift to Mrs. Hughes}

Living Moss

Starfish. Larger than any I had.

Mussel — (*Mytilus Cal.*?)

Colinus Beldingi.

June, 1911. Brown sealion, with a red scar, from J. E. C. One of the moseye hands.

Tiny piece lead - Harold.
Missouri Blanket Iron Mining Co.

Phoenix — Jack
Delicate — V.D.N.

(Balaric. Fine lead (several pieces)
& good pieces situated. ^{largest} ~~stained~~

Wagner ? Marcasite — lead
Eastonville or Webb City

Atlas —

Monro 3 pieces Galena
1 large piece "
(Dolomite & Jack)

[illegible]

James Wetzel Product of Franklin
Tuesco Co. N. J.

Lehalle

Pipe St. Minn.

Norwalk Arkans

Saltpetre Crystal

Wepke Laga Crystal

Blue Vitriol Box So 4

Lava

8
Peperites Yellowish Rk Marble

Variiegated Marble Plymout Vb.

Prehnite 3 Somerville

Garnets Dedham Mass.

" Hatfield N. Y.

" Reading Conn.

Pseudomorphs 9 - Spencer

Lincolnton Barre Mass.

Wrentham " "

Lincolnton Barre " "

" Camden Andover

Orange 2

Actinolite Burlington Ch.

Actinolite Cavendish Vt.

Amphibole Hatfield R. I.

Amblund Barre Mass.

Anthophyllite Gorham N.H.

Black Quartz Dutch Flat Cal.

Pressed Quartz Wilkes N. H.

Milky " "

Rose " "

" " "

Pebbles Smoky " "

Smoky " Wilkes "

Cryst. " "

Pink Cr. Mt. Kennebec

Quartz Rock N. Adams.

Granulated Cr. Wilkes

Milky Cr. Wilkes

Rose " "

Pressed " "

Smoky " "

Black Dutch Flat Cal.

Springside Lake Pike

Flint Pelham Mass.

" "

" "

Carnelian Pebbles 2 N.S.
" " 12 Miss. R.

Carnelian Polished
Agates 3. Rocky Mts W.M.

Agate
(Agate)
Amethyst. Lake Superior 2
" Wore S.
" Aunt M.

2 Pumice
2 warty Crystals
" "
" " " Gorham N.H.
" " Hot Spring Ark.
Linky 2. Crystals W.M.
Part of Crystals Bridgeport W.Va.
2. Crystals Herkimer Co. N.Y.
" " Texas
Garnet Sand Marble head
Iron Sand Beards

3 Grodes
Part of G. Alden Iowa
" Keokuk Iowa
Grode " "
" " "
Chalcedony G. " "

4 Arkelos S. L. D. W.
" Staten Id. N. Y.
" Italy
Mineral Water Colorado
Asbestos? Cent Ar.
or Pinnite?
" Mr. R. Well
Pinnite? Central Ar.

5. Magnetite Penna. Marion
" "
Hematite Pierpont N. J.
" " Eng.
Minerals H. Colorado

Arkelos small white R.P.

Dry Bone from Alden Ind.

Reynold's Crystal M. Mass

Mica (Muscovite) Crystal 3

Star Rock Kama

Mica Biotite Crystal Spence

Talc Crystal? Lincoln H. S.

Chrysotile Crystal Alden Ind 2

Staurolite " Georgia 2

Native Copper Nevada H. M.

Isot. " "

Calc Sp. Smithfield N. H.

Latin Sp. " "

Prussian Serpentine

Willamette B. T. M.

Pyrite with Indurated
Lancaster Mass

Galena Cumberland Eng.

" Galena Ill.

Lead & Silver Ore Newburyport 3

Galena Colorado

Pyrites in Plate Somerville

Copper Pyrites Rowe Mass 3.

Pyrites Milan N. H.

" " " Rem

Copper ore " " " "

Pyrites Amherst Mass

Copper Monach Ely N. H.

Iron Blende " " "

Copper Ely N. H.

Chlorite Rowe Mass

Chlorite West " "

Iron Ore " " "

Formation " " "

" Black (Radiolite) West Green

" " " " "

" Black " " "

" Green " " "

" Pink " " "

Foliated Steatite Rowe Mass.

Steatite " "

Talc Lincoln R. I.

Talc ? " "

Talc Rowe Mass.

" Spar H. Lawrence Co N. Y.

Silicified Wood 2 Mass.

Carbonate crystals 2 Water

Obsidian Yellow Stone Pk

Epidote crystals Sugar Hill

2 N. H.

Copper ?

Diamond Drill Core, Wash

Gay Head Calcareous Am. M.

Toad-stone Georgetown Mass.

Scapolite ? Buxton Mass.

" ? with Apatite ? " "

Amorphous Earth Carbonate

Green Feldspar Rockport Mass.

Boltomite with Serpentine

Obolite - calcite - Chelmsford

Selenite N. Greenland

" Plymouth Vt.

Mica Muscovite Wilnot - Vt.

3

Marble White N. Adams

Mica (Plumbeous) Wilnot

Epidote ? Lime Vt.

Black Mica (Biotite) R. I. S. S.

Dendrite on Limestone Smithfield

Jasper, Langens, Mass.

" Berlin N. H. 5

Diatomaceous Earth Richmond

" " Plymouth

" "

Graphite -

Breccia

Dendrite on Argillite - 2

"

Leptynite - Plymouth Ct.

Serpentine Sandstone Danvers

Md.
E. L. R.